

## ABSTRACT OF THE DISCLOSURE

A method of manufacturing a semiconductor device, includes the steps of: (a) forming a first inter-level insulating film on a semiconductor substrate formed with semiconductor elements; (b) forming a contact hole 5 through the first inter-level insulating film; (c) forming a plug made of conductive material capable of being nitrided, the plug being embedded in the contact hole; and (d) heating the semiconductor substrate in a nitriding atmosphere to nitride the plug from a surface thereof. This semiconductor device manufacture method can prevent breakdown of a plug when a capacitor is formed on the plug.

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